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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHELEHEDA, JAMES R

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/430,950

Applicant(s)

INOUE ET AL.

Examiner

James Sheleheda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/15/06 has been entered.

### ***Priority***

2. All of the pending claims receive a priority date of 8/28/05, as the amended limitations are not supported by the foreign priority documents.

### ***Terminal Disclaimer***

3. The Terminal Disclaimer filed 08/21/06 has been received and is currently under review.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hooper et al. (Hooper) (5,442,390) (of record) in view of Abecassis (6,553,178).

As to claim 48, while Hooper discloses a method of supplying program information in a near video on demand system (column 10, lines 15-28), comprising the steps of:

providing the same program information on time offset channels (column 10, lines 15-28), said time offset being the same from channel to channel so that the start time of said program information on one channel differs from the start time of said program information on another by said time offset (column 10, lines 15-28), and

transmitting said program information simultaneously on a plurality of said time offset channels to a receiving station (column 10, lines 15-28), so as to permit the recording of a segment of the transmitted program information in a buffer of the receiving station commencing from said start time (buffering the video as it is received; column 10, lines 29-54) and lasting no more than a predetermined duration that is less than the duration of said program information (wherein the buffer continuously buffers and overwrites a small segment of the video; column 10, lines 29-53 and column 11, line 53-column 12, line 4), and reading the recorded segment of program information while buffering the program information that is transmitted on the same channel as the segment of program information (column 10, lines 29-53 and column 11, line 53-column 12, line 4),

wherein reading of said stored segment is paused in response to a pause command while the program information continues buffering (column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4), and where after reading of said stored segment is resumed in response to a resume command (allowing the user to continue watching the movie after the pause; column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4);

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 10, lines 37-53) if a time difference between the pause command and the resume command is greater than said time offset (wherein the fill-pointer cannot pass the read-pointer in the circular buffer, and thus has stopped buffering once the storage is full, the system will jump to an offset time window for retrieving the video; column 10, lines 37-53 and column 11, line 45-column 12, line 4),

he fails to specifically disclose wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

6. Claims 22-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hooper in view of Garfinkle (5,530,754) (of record) and Abecassis.

As to claim 22, Hooper discloses a method of receiving program information supplied on plural time-offset channels in a near video on demand system (column 10, lines 15-28), comprising the steps of:

selecting a particular channel (selecting the channel with the next closest start time; column 10, line 25-28); and

receiving the program information supplied on said particular channel (column 10, line 25-53);

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 10, lines 37-53) if a time difference between a pause command and the resume command is greater than said time offset (wherein the fill-pointer cannot pass the read-pointer in the circular buffer, and thus has stopped buffering once the storage is full, the system will jump to an offset time window for retrieving the video; column 10, lines 37-53 and column 11, line 45-column 12, line 4).

While Hooper discloses storing program information in a buffer memory of a receiver in the near video on demand system (buffering the video as it is received; column 10, lines 29-54), reading stored information while buffering the program information supplied on said particular channel in response to the selection of the particular channel (column 10, lines 29-53 and column 11, line 53-column 12, line 4), and wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4), and where after reading of said stored segment is resumed in response to a resume command (allowing the user to continue watching the movie after the pause; column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the

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selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.



As to claim 23, Hooper, Garfinkle and Abecassis disclose wherein said time-offset is equal to the difference between a start time at which said program information is transmitted on one channel and the start-time at which the same program information is next transmitted on another channel (see Hooper at column 10, lines 11-53).

As to claim 24, Hooper, Garfinkle and Abecassis disclose wherein said program information supplied on said particular channel is buffered by writing said program information into a storage device (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53) and reading said program information from said storage device (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53 and column 11, line 29-column 12, line 17), said reading of said program information commencing after said stored segment of said program information has been substantially fully read (see Garfinkle at column 4, lines 19-34), thereby seamlessly reading said program information (see Garfinkle at column 4, lines 19-34).

As to claim 25, Hooper, Garfinkle and Abecassis disclose wherein said stored segment exhibits a time duration (see Garfinkle at column 4, lines 19-34) substantially equal to the duration of said time offset (see Garfinkle at column 4, lines 21-26 and see Hooper at column 10, lines 11-53 and column 11, lines 18-28).

As to claim 26, Hooper, Garfinkle and Abecassis disclose wherein said one channel over which said segment is supplied (see Garfinkle at Fig. 1; column 3, lines 6-

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49) and said particular channel over which the buffered program information is supplied (see Hooper at column 10, lines 9-53) is supplied are the same (see Garfinkle at Fig. 1; column 4, lines 13-35 and column 4, line 66-column 5, line 9 and see Hooper at column 10, lines 9-53).

As to claim 27, Hooper, Garfinkle and Abecassis disclose wherein the same program information is supplied simultaneously on said plural time-offset channels (see Hooper at column 10, lines 9-29), and wherein the program information that is supplied on said one channel commencing at the start time of said program information and continuing until said particular channel is selected constitutes said segment that is stored (wherein the lead-in constitutes the starting portion of the movie; see Garfinkle at column 4, lines 13-34 and see Hooper at column 10, lines 9-29).

As to claim 28, Hooper, Garfinkle and Abecassis disclose wherein said stored segment of said program information is read out when said one channel is selected as said particular channel (read out when the particular movie is selected; see Garfinkle at column 4, lines 13-26 and see Hooper at column 10, lines 9-53).

As to claim 29, Hooper, Garfinkle and Abecassis disclose wherein said program information is a video program (see Hooper at column 10, lines 9-29).

As to claim 30, Hooper discloses an apparatus for receiving program information supplied on plural time-offset channels in a near video-on-demand system (column 10, lines 15-28), comprising the steps of:

a channel selector (Fig. 1) for selecting a particular channel (selecting the channel with the next closest start time; column 10, line 25-28); and for receiving the program information supplied on said particular channel (column 10, line 25-28);

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 10, lines 37-53) if a time difference between a pause command and a resume command is greater than said time offset (wherein the fill-pointer cannot pass the read-pointer in the circular buffer, and thus has stopped buffering once the storage is full, the system will jump to an offset time window for retrieving the video; column 10, lines 37-53 and column 11, line 45-column 12, line 4).

While Hooper discloses a buffer for storing program information received on said particular channel in the apparatus (buffering the video as it is received; column 10, lines 29-54), a read out device for reading out said stored program information while said buffer is buffering the program information in response to the selection of said particular channel (column 10, lines 29-53 and column 11, line 53-column 12, line 4), and wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4), and where after reading of said stored segment is resumed in response to a resume command (allowing

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the user to continue watching the movie after the pause; column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

As to claim 31, Hooper, Garfinkle and Abecassis disclose wherein said time-offset is equal to the difference between a start time at which said program information is transmitted on one channel and the start-time at which the same program information is next transmitted on another channel (see Hooper at column 10, lines 11-53).

As to claim 32, Hooper, Garfinkle and Abecassis disclose wherein said buffer buffers the program information received on said particular channel by writing the received program information into a memory (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53) and thereafter reading said program information from

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said memory (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53 and column 11, line 29-column 12, line 17), the received program information being read from said memory once said stored segment of program information has been substantially fully read out from said storage device (see Garfinkle at column 4, lines 19-34), thereby seamlessly recovering substantially all of said program information regardless of when said particular channel is selected (see Garfinkle at column 4, lines 19-34).

As to claim 33, Hooper, Garfinkle and Abecassis disclose wherein said buffer includes a hard disk drive (see Hooper at column 10, lines 29-36).

As to claim 34, Hooper, Garfinkle and Abecassis disclose wherein said storage device includes said hard disk drive (see Garfinkle at column 3, lines 14-19 and see Hooper at column 10, lines 29-36).

As to claim 35, Hooper, Garfinkle and Abecassis disclose wherein said hard disk drive includes write and read circuits operable at the same time to write and read from the hard disk drive concurrently (see Garfinkle at column 3, lines 14-19, column 4, lines 13-34 and column 4, line 66-column 5, line 9 and see Hooper at column 10, lines 29-36 and column 11, line 29-column 12, line 4).

As to claim 36, Hooper, Garfinkle and Abecassis disclose wherein said stored segment exhibits a time duration (see Garfinkle at column 4, lines 19-34) substantially equal to the duration of said time offset (see Garfinkle at column 4, lines 21-26 and see Hooper at column 10, lines 11-53 and column 11, lines 18-28).

As to claim 37, Hooper, Garfinkle and Abecassis disclose wherein said one channel over which said segment is supplied (see Garfinkle at Fig. 1; column 3, lines 6-49) and said particular channel over which the buffered program information is supplied (see Hooper at column 10, lines 9-53) is supplied are the same (see Garfinkle at Fig. 1; column 4, lines 13-35 and column 4, line 66-column 5, line 9 and see Hooper at column 10, lines 9-53).

As to claim 38, Hooper, Garfinkle and Abecassis disclose wherein the same program information is supplied simultaneously on said plural channels (see Hooper at column 10, lines 9-29), and said segment is formed by storing said program information on one channel commencing at said start time (see Garfinkle at column 4, lines 13-34 and see Hooper at column 10, lines 9-29) and then, if said particular channel is not selected by the time the start time of said program information on said another channel is reached, replacing the stored segment of program information in said storage device with the program information supplied on said another channel (downloading new information for available movies; see Garfinkle at column 3, lines 6-49).

As to claim 39, Hooper, Garfinkle and Abecassis disclose wherein said read out device commences the read out of said stored segment of program information when said particular channel is selected (read out when the particular movie is selected; see Garfinkle at column 4, lines 13-26 and see Hooper at column 10, lines 9-53).

As to claim 40, Hooper, Garfinkle and Abecassis disclose wherein said program information is a video program (see Hooper at column 10, lines 9-29).

As to claim 41, while Hooper discloses a method of receiving program information in a near video on demand system (column 10, lines 15-28), comprising the steps of:

storing program information in a buffer memory of a receiver in the near video on demand system (buffering the video as it is received; column 10, lines 29-54);

reading stored information while buffering the program information supplied on said particular channel in response to the selection of the particular channel (column 10, lines 29-53 and column 11, line 53-column 12, line 4);

wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4), and whereafter reading of said stored segment is resumed in response to a resume command (allowing the user to continue watching the movie after the pause; column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4);



wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 10, lines 37-53) if a time difference between a pause command and the resume command is greater than said time offset (wherein the fill-pointer cannot pass the read-pointer in the circular buffer, and thus has stopped buffering once the storage is full, the system will jump to an offset time window for retrieving the video; column 10, lines 37-53 and column 11, line 45-column 12, line 4),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein

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upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

As to claim 42, Hooper, Garfinkle and Abecassis disclose wherein said program information supplied on said particular channel is buffered by writing said program information into a storage device (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53) and reading said program information from said storage device (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53 and column

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11, line 29-column 12, line 17), said reading of said program information commencing after said stored segment of said program information has been substantially fully read (see Garfinkle at column 4, lines 19-34), thereby seamlessly reading said program information (see Garfinkle at column 4, lines 19-34).

As to claim 43, while Hooper discloses an apparatus for receiving program information in a near video on demand system (column 10, lines 15-28), comprising the steps of:

a buffer for buffering the program information which continues to be received in the apparatus (buffering the video as it is received; column 10, lines 29-54); and

a read out device for reading out said stored program information while said buffer is buffering said received program information (column 10, lines 29-53 and column 11, line 53-column 12, line 4);

wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4), and whereafter reading of said stored segment is resumed in response to a resume command (allowing the user to continue watching the movie after the pause; column 3, lines 36-41, column 10, lines 29-53 and column 11, line 53-column 12, line 4),

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 10, lines 37-53) if a time difference between a pause command and a resume command is greater than said time offset (wherein the

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fill-pointer cannot pass the read-pointer in the circular buffer, and thus has stopped buffering once the storage is full, the system will jump to an offset time window for retrieving the video; column 10, lines 37-53 and column 11, line 45-column 12, line 4),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of

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allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hooper and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

As to claim 44, Hooper, Garfinkle and Abecassis disclose wherein said buffer buffers the program information received on said particular channel by writing the received program information into a memory (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53) and thereafter reading said program information from said memory (see Garfinkle at column 5, lines 3-9 and Hooper at column 10, lines 29-53 and column 11, line 29-column 12, line 17), the received program information being read from said memory once said stored segment of program information has been

substantially fully read out from said storage device (see Garfinkle at column 4, lines 19-34), thereby seamlessly recovering substantially all of said program information regardless of when said particular channel is selected (see Garfinkle at column 4, lines 19-34).

As to claim 45, Hooper, Garfinkle and Abecassis disclose wherein said buffer includes a hard disk drive (see Hooper at column 10, lines 29-36).

As to claim 46, Hooper, Garfinkle and Abecassis disclose wherein said storage device includes said hard disk drive (see Garfinkle at column 3, lines 14-19 and see Hooper at column 10, lines 29-36).

As to claim 47, Hooper, Garfinkle and Abecassis disclose wherein said hard disk drive includes write and read circuits operable at the same time to write and read from the hard disk drive concurrently (see Garfinkle at column 3, lines 14-19, column 4, lines 13-34 and column 4, line 66-column 5, line 9 and see Hooper at column 10, lines 29-36 and column 11, line 29-column 12, line 4).

7. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen et al. (Shen) (6,434,748) (of record) in view of Dunn et al. (Dunn) (5,721,829).

As to claim 48, while Shen discloses a method of supplying program information in a near video on demand system, comprising the steps of:

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providing the same program information on time offset channels (Fig. 3; column 5, lines 35-55), said time offset being the same from channel to channel so that the start time of said program information on one channel differs from the start time of said program information on another by said time offset (Fig. 3; column 5, lines 35-55); and

transmitting said program information simultaneously on a plurality of said time offset channels to a receiving station (Fig. 3; column 5, lines 35-55) so as to permit the recording of a segment of the transmitted program information in a buffer of the receiving station commencing from said start time (buffering the video as it is received; column 6, lines 17-52) and lasting no more than a predetermined duration that is less than the duration of said program information (wherein the buffer continuously buffers and overwrites a small segment of the video; column 6, lines 24-53 and column 8, lines 39-57), and reading the recorded segment of program information while buffering the program information that is transmitted on the same channel as the segment of program information (column 6, lines 24-52 and column 7, lines 10-41),

wherein reading of said stored segment is paused in response to a pause command while the program information continues buffering (column 7, lines 10-43), and where after reading of said stored segment is resumed in response to a resume command (column 7, lines 10-43);

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 8, lines 18-35) if a time difference between the pause command and the resume command is greater than said time offset (wherein an

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offset stream is selected to write to the buffer if the pause is greater than a segment length; see Fig. 3 and column 7, line 30-column 8, line 38),

he fails to specifically disclose wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Dunn discloses a video distribution system (Fig. 1; column 2, lines 40-57) wherein a user may pause the video (column 2, lines 7-21 and column 6, lines 16-55) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 7, line 63-column 8, line 11) for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off (column 7, line 63-column 8, line 11).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Dunn, for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off.

8. Claims 22-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen in view of Garfinkle and Dunn.



As to claim 22, Shen discloses a method of receiving program information supplied on plural time-offset channels in a near video on demand system (Figs. 3 and 4; column 5, lines 28-55), comprising the steps of:

selecting a particular channel (column 6, lines 7-23); and  
receiving the program information supplied on said particular channel (column 6, lines 7-52);

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 8, lines 18-35) if a time difference between the pause command and the resume command is greater than said time offset (wherein an offset stream is selected to write to the buffer if the pause is greater than a segment length; see Fig. 3 and column 7, line 30-column 8, line 38).

While Shen discloses storing program information in a buffer memory of a receiver in the near video on demand system (buffering of a program as it's received; column 6, lines 18-52), reading stored information while buffering the program information supplied on said particular channel in response to the selection of the particular channel (buffering incoming video to allow trick-play; column 6, lines 17-53); and wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 7, lines 10-62), and where after reading of said stored segment is resumed in response to a resume command (column 7, line 44-column 8, line 57),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program

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information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Dunn discloses a video distribution system (Fig. 1; column 2, lines 40-57) wherein a user may pause the video (column 2, lines 7-21 and column 6, lines 16-55) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 7, line 63-column 8, line 11) for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off (column 7, line 63-column 8, line 11).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment

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of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Dunn, for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off.

As to claim 23, Shen, Garfinkle and Dunn disclose wherein said time-offset is equal to the difference between a start time at which said program information is transmitted on one channel and the start-time at which the same program information is next transmitted on another channel (see Shen at Fig. 3 and column 5, lines 35-55).

As to claim 24, Shen, Garfinkle and Dunn disclose wherein said program information supplied on said particular channel is buffered by writing said program information into a storage device (see Garfinkle at column 5, lines 3-9 and Shen at column 6, lines 17-53) and reading said program information from said storage device (see Garfinkle at column 5, lines 3-9 and Shen at column 6, lines 17-53), said reading of said program information commencing after said stored segment of said program information has been substantially fully read (see Garfinkle at column 4, lines 19-34),

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thereby seamlessly reading said program information (see Garfinkle at column 4, lines 19-34).

As to claim 25, Shen, Garfinkle and Dunn disclose wherein said stored segment exhibits a time duration (see Garfinkle at column 4, lines 19-34) substantially equal to the duration of said time offset (see Garfinkle at column 4, lines 21-26 and Shen at column 8, lines 43-53).

As to claim 26, Shen, Garfinkle and Dunn disclose wherein said one channel over which said segment is supplied (see Garfinkle at Fig. 1; column 3, lines 6-49) and said particular channel over which the buffered program information is supplied (see Shen at column 6, lines 17-52 and column 7, lines 10-43) is supplied are the same (see Garfinkle at Fig. 1; column 4, lines 13-35 and column 4, line 66-column 5, line 9 and see Shen at column 6, lines 17-52 and column 7, lines 10-43).

As to claim 27, Shen, Garfinkle and Dunn disclose wherein the same program information is supplied simultaneously on said plural time-offset channels (see Shen at Fig. 3 and column 5, lines 35-55), and wherein the program information that is supplied on said one channel commencing at the start time of said program information and continuing until said particular channel is selected constitutes said segment that is stored (wherein the lead-in constitutes the starting portion of the movie; see Garfinkle at column 4, lines 13-34 and Shen at Fig. 3 and column 5, line 56-column 6, line 23).

As to claim 28, Shen, Garfinkle and Dunn disclose wherein said stored segment of said program information is read out when said one channel is selected as said particular channel (read out when the particular movie is selected; see Garfinkle at column 4, lines 13-26 and Shen at Fig. 3 and column 5, line 56-column 6, line 23).

As to claim 29, Shen, Garfinkle and Dunn disclose wherein said program information is a video program (see Shen at column 5, lines 28-55).

As to claim 30, Shen discloses an apparatus for receiving program information supplied on plural time-offset channels in a near video-on-demand system (Figs. 3 and 4; column 5, lines 28-55), comprising the steps of:

a channel selector (controller, 56) for selecting a particular channel (column 6, lines 7-23) and for receiving the program information supplied on said particular channel (column 6, lines 7-52);

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 8, lines 18-35) if a time difference between the pause command and the resume command is greater than said time offset (wherein an offset stream is selected to write to the buffer if the pause is greater than a segment length; see Fig. 3 and column 7, line 30-column 8, line 38).

While Shen discloses storing program information in a buffer memory of a receiver in the near video on demand system (buffering of a program as it's received;

column 6, lines 18-52), a readout device (selector, 54; column 6, lines 37-43) for reading out stored information while said buffer is buffering the program information supplied on said particular channel in response to the selection of the particular channel (buffering incoming video to allow trick-play; column 6, lines 17-53); and wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 7, lines 10-62), and where after reading of said stored segment is resumed in response to a resume command (column 7, line 44-column 8, line 57),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Dunn discloses a video distribution system (Fig. 1; column 2, lines 40-57) wherein a user may pause the video (column 2, lines 7-21 and column 6, lines 16-55) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 7, line 63-column 8, line 11) for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off (column 7, line 63-column 8, line 11).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Dunn, for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off.

As to claim 31, Shen, Garfinkle and Dunn disclose wherein said time-offset is equal to the difference between a start time at which said program information is

transmitted on one channel and the start-time at which the same program information is next transmitted on another channel (see Shen at Fig. 3 and column 5, lines 35-55).

As to claim 32, Shen, Garfinkle and Dunn disclose wherein said buffer buffers the program information received on said particular channel by writing the received program information into a memory (see Garfinkle at column 5, lines 3-9 and Shen at column 7, lines 10-62),) and thereafter reading said program information from said memory (see Garfinkle at column 5, lines 3-9 and Shen at column 7, lines 10-62), the received program information being read from said memory once said stored segment of program information has been substantially fully read out from said storage device (see Garfinkle at column 4, lines 19-34), thereby seamlessly recovering substantially all of said program information regardless of when said particular channel is selected (see Garfinkle at column 4, lines 19-34).

As to claim 33, Shen, Garfinkle and Dunn disclose wherein said buffer includes a hard disk drive (see Shen at column 6, lines 24-27).

As to claim 34, Shen, Garfinkle and Dunn disclose wherein said storage device includes said hard disk drive (see Garfinkle at column 3, lines 14-19 and Shen at column 6, lines 24-27).



As to claim 35, Shen, Garfinkle and Dunn disclose wherein said hard disk drive includes write and read circuits operable at the same time to write and read from the hard disk drive concurrently (see Garfinkle at column 3, lines 14-19, column 4, lines 13-34 and column 4, line 66-column 5, line 9 and Shen at column 6, lines 24-52).

As to claim 36, Shen, Garfinkle and Dunn disclose wherein said stored segment exhibits a time duration (see Garfinkle at column 4, lines 19-34) substantially equal to the duration of said time offset (see Garfinkle at column 4, lines 21-26 and Shen at column 8, lines 43-53).

As to claim 37, Shen, Garfinkle and Dunn disclose wherein said one channel on which said segment is supplied (see Garfinkle at Fig. 1; column 3, lines 6-49) and said particular channel on which said program information is received (see Shen at column 6, lines 17-52 and column 7, lines 10-43) are the same (see Garfinkle at Fig. 1; column 4, lines 13-35 and column 4, line 66-column 5, line 9 and see Shen at column 6, lines 17-52 and column 7, lines 10-43).

As to claim 38, Shen, Garfinkle and Dunn disclose wherein the same program information is supplied simultaneously on said plural channels (see Shen at Fig. 3 and column 5, lines 35-55), and said segment is formed by storing said program information on one channel commencing at said start time (see Garfinkle at column 4, lines 13-34 and Shen at Fig. 3 and column 5, line 35-column 6, line 24) and then, if said particular

channel is not selected by the time the start time of said program information on said another channel is reached, replacing the stored segment of program information in said storage device with the program information supplied on said another channel (downloading new information for available movies; see Garfinkle at column 3, lines 6-49).

As to claim 39, Shen, Garfinkle and Dunn disclose wherein said read out device commences the read out of said stored segment of program information when said particular channel is selected (read out when the particular movie is selected; see Garfinkle at column 4, lines 13-26 and Shen at column 6, lines 17-24).

As to claim 40, Shen, Garfinkle and Dunn disclose wherein said program information is a video program (see Shen at column 5, lines 28-55).

As to claim 41, while Shen discloses a method of receiving program information in a near video on demand system (Figs. 3 and 4; column 5, lines 28-55), comprising the steps of:

storing program information in a buffer memory of a receiver in the near video on demand system (buffering of a program as it's received; column 6, lines 18-52),

reading stored information while buffering the program information which continues to be received (buffering incoming video to allow trick-play; column 6, lines 17-53);

wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 7, lines 10-62), and where after reading of said stored segment is resumed in response to a resume command (column 7, line 44-column 8, line 57),

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 8, lines 18-35) if a time difference between the pause command and the resume command is greater than said time offset (wherein an offset stream is selected to write to the buffer if the pause is greater than a segment length; see Fig. 3 and column 7, line 30-column 8, line 38),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical

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benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Dunn discloses a video distribution system (Fig. 1; column 2, lines 40-57) wherein a user may pause the video (column 2, lines 7-21 and column 6, lines 16-55) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 7, line 63-column 8, line 11) for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off (column 7, line 63-column 8, line 11).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Dunn, for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off.

As to claim 42, Shen, Garfinkle and Dunn disclose wherein the received program information is buffered by writing said program information into a storage device (see Garfinkle at column 5, lines 3-9 and Shen at column 6, lines 17-53) and reading said program information from said storage device (see Garfinkle at column 5, lines 3-9 and Shen at column 6, lines 17-53), said reading of said program information commencing after said stored segment of said program information has been substantially fully read (see Garfinkle at column 4, lines 19-34), thereby seamlessly reading said program information (see Garfinkle at column 4, lines 19-34).

As to claim 43, while Shen discloses an apparatus for receiving program information in a near video-on-demand system (Figs. 3 and 4; column 5, lines 28-55), comprising the steps of:

a buffer (DSM, 50; column 6, lines 17-53) for buffering the program information which continues to be received in the apparatus storing program information in a buffer memory of a receiver in the near video on demand system (buffering of a program as it's received; column 6, lines 18-52),

a readout device (selector, 54; column 6, lines 37-43) for reading out stored information while said buffer is buffering said received program information (buffering incoming video to allow trick-play; column 6, lines 17-53);

wherein reading of said stored information is paused in response to a pause command while the program information continues buffering (column 7, lines 10-62),

and where after reading of said stored segment is resumed in response to a resume command (column 7, line 44-column 8, line 57),

wherein a second channel, time-offset from said particular channel, is selected to supply the program information (column 8, lines 18-35) if a time difference between the pause command and the resume command is greater than said time offset (wherein an offset stream is selected to write to the buffer if the pause is greater than a segment length; see Fig. 3 and column 7, line 30-column 8, line 38),

he fails to specifically disclose storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information and wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed.

In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately (column 4, line 17-21 and column 1, lines 63-67).

Additionally, in an analogous art, Dunn discloses a video distribution system (Fig. 1; column 2, lines 40-57) wherein a user may pause the video (column 2, lines 7-21 and column 6, lines 16-55) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 7, line 63-column 8, line 11) for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off (column 7, line 63-column 8, line 11).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen's system to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Shen and Garfinkle's system to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Dunn, for the typical benefit of refreshing the viewer with the sequence of events that were occurring when the viewer last left off.

As to claim 44, Shen, Garfinkle and Dunn disclose wherein said buffer buffers the received program information by writing the received program information into a memory (see Garfinkle at column 5, lines 3-9 and Shen at column 6, lines 17-53) and

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thereafter reading said received program information from said memory (see Garfinkle at column 5, lines 3-9 and Shen at column 6, lines 17-53), the received program information being read from said memory once said stored segment of said program information has been substantially fully read out from said storage device (see Garfinkle at column 4, lines 19-34), thereby seamlessly recovering substantially all of said program information (see Garfinkle at column 4, lines 19-34).

As to claim 45, Shen, Garfinkle and Dunn disclose wherein said buffer includes a hard disk drive (see Shen at column 6, lines 24-27).

As to claim 46, Shen, Garfinkle and Dunn disclose wherein said storage device includes said hard disk drive (see Garfinkle at column 3, lines 14-19 and Shen at column 6, lines 24-27).

As to claim 47, Shen, Garfinkle and Dunn disclose wherein said hard disk drive includes write and read circuits operable at the same time to write and read from the hard disk drive concurrently (see Garfinkle at column 3, lines 14-19, column 4, lines 13-34 and column 4, line 66-column 5, line 9 and Shen at column 6, lines 24-52).

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 22-48 have been considered but are moot in view of the new ground(s) of rejection.



### ***Double Patenting***

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claim 48 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 5,990,881 in view of Abecassis.

Regarding claim 48, of the instant application:

On lines 1-6, the "method of supplying" and the "providing step" correspond to U.S. Patent No. 5,990,881, claim 1, lines 1-6, wherein the receiving is a result of a previous supplying step.

On lines 7-14, the "transmitting step" corresponds to U.S. Patent No. 5,990,881, claims 1 and 2, wherein the signals are previously transmitted to be received.

Lines 15-17, correspond to U.S. Patent No. 5,990,881, claim 1, lines 13-19.

Lines 18-20, correspond to U.S. Patent No. 5,990,881, claims 3 and 4.

In an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the system disclosed by U.S. Patent 5,990,881 to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

12. Claims 22-32, 36, 37 and 40-48 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 and 8 of U.S. Patent No. 5,990,881 in view of Garfinkle and Abecassis.

Regarding claim 22, of the instant application:

On lines 1-2, the "method of receiving" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6.

On lines 3-4, the "storing" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-7, disclosing storing received video information, which fails to disclose storing a segment of the program information. In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately. It would have been obvious to one of ordinary skill to modify the system disclosed by U.S. Patent 5,990,881 to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the system disclosed by U.S. Patent 5,990,881 and Garfinkle to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

On line 5, the "selecting" corresponds to U.S. Patent No. 5,990,881, claims 1, lines 9-11.

On line 6, the "receiving" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 9-11.

On lines 7-9, the "reading" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 9-19 and Garfinkle at column 4, lines 13-26.

Lines 10-12, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 13-19 and Garfinkle at column 4, lines 13-26.

Lines 13-15, correspond to U.S. Patent No. 5,990,881, claims 3 and 4.

Claim 23, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6.

Claim 24, of the instant application, corresponds to U.S. Patent No. 5,990,881, claims 3-6 and 8.

Claim 25, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 3.

Claim 26, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 13-19, claim 3 and Garfinkle at Fig. 1; column 4, lines 13-35 and column 4, line 66-column 5, line 9.

Claim 27, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 17-19 and Garfinkle at column 4, lines 13-34.

Claim 28, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 17-19 and Garfinkle at column 4, lines 13-34.

Claim 29, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6.

Regarding claim 30, of the instant application:

On lines 1-2, the "receiving program information" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6, the difference being that U.S. Patent No. 5,990,881 does not specifically disclose an apparatus for performing the specific method. The use of an apparatus, so as to perform a particular function, is well known and obvious in the art.

On lines 3-4, the "storing" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-7, disclosing storing received video information, which fails to disclose storing a segment of the program information. In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately. It would have been obvious to one of ordinary skill to modify the system disclosed by U.S. Patent 5,990,881 to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program

information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of continuity (column 4, lines 61-67). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the system disclosed by U.S. Patent 5,990,881 and Garfinkle to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

On line 5, the "selecting" corresponds to U.S. Patent No. 5,990,881, claims 1, lines 9-11.

On line 6, the "buffering" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 7-11.

On lines 7-9, the "reading" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 9-19 and Garfinkle at column 4, lines 13-26.

Lines 10-12, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 13-19 and Garfinkle at column 4, lines 13-26.

Lines 13-15, correspond to U.S. Patent No. 5,990,881, claims 3 and 4.

Claim 31, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6.

Claim 32, of the instant application, corresponds to U.S. Patent No. 5,990,881, claims 3-6 and 8.

Claim 36, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 3.

Claim 37, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 13-19, claim 3 and Garfinkle at Fig. 1; column 4, lines 13-35 and column 4, line 66-column 5, line 9.

Claim 40, of the instant application, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6.

Regarding claim 41, of the instant application:



On lines 1-2, the "method of receiving" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6.

On lines 3-4, the "storing" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-7, disclosing storing received video information, which fails to disclose storing a segment of the program information. In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately. It would have been obvious to one of ordinary skill to modify the system disclosed by U.S. Patent 5,990,881 to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of

continuity (column 4, lines 61-67). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the system disclosed by U.S. Patent 5,990,881 and Garfinkle to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

On lines 5-6, the "reading" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 9-19 and Garfinkle at column 4, lines 13-26.

Lines 7-9, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 13-19 and Garfinkle at column 4, lines 13-26.

Lines 10-12, correspond to U.S. Patent No. 5,990,881, claims 3 and 4.

Claim 42, of the instant application, corresponds to U.S. Patent No. 5,990,881, claims 3-6 and 8.

Regarding claim 43, of the instant application:

On lines 1-2, the "receiving program information" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-6, the difference being that U.S. Patent No. 5,990,881 does not specifically disclose an apparatus for performing the

specific method. The use of an apparatus, so as to perform a particular function, is well known and obvious in the art.

On lines 3-4, the "storing" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 1-7, disclosing storing received video information, which fails to disclose storing a segment of the program information. In an analogous art, Garfinkle discloses a video distribution system (Fig. 1; column 2, lines 39-57) wherein a lead-in portion of a video is stored in a memory of a receiver (site catalog store, 22; column 4, lines 13-26 and column 4, line 66-column 5, line 3) and wherein the stored lead-in is read while buffering program information (Fig. 5; column 4, lines 13-26 and column 4, line 66-column 5, line 9) in response to the selection of said particular program (column 4, line 66-column 5, line 9) for the typical benefit of allowing the display of the movie to begin immediately. It would have been obvious to one of ordinary skill to modify the system disclosed by U.S. Patent 5,990,881 to include storing a segment of the program information supplied on one of said channels and reading said stored segment of program information while buffering said program information, as taught by Garfinkle, for the typical benefit of allowing the display of the movie to begin immediately.

Additionally, in an analogous art, Abecassis discloses a VOD system (column 2, lines 12-24) wherein a user may pause the video (column 4, lines 61-67) and wherein upon playback, the video is reproduced from a point prior to the point the video was pause (column 1, lines 25-37 and column 4, lines 61-67) for the typical benefit of allowing the user to re-engage the video without loss of

continuity (column 4, lines 61-67). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the system disclosed by U.S. Patent 5,990,881 and Garfinkle to include wherein when display of the program information is resumed after the resume command, a pre-selected segment of the program information immediately preceding a point at which the pause command was requested is first displayed, as taught by Abecassis, for the typical benefit of allowing the user to re-engage the video without loss of continuity.

On lines 5-6, the "reading" corresponds to U.S. Patent No. 5,990,881, claim 1, lines 9-19 and Garfinkle at column 4, lines 13-26.

Lines 7-9, corresponds to U.S. Patent No. 5,990,881, claim 1, lines 13-19 and Garfinkle at column 4, lines 13-26.

Lines 10-12, correspond to U.S. Patent No. 5,990,881, claims 3 and 4.

Claim 44, of the instant application, corresponds to U.S. Patent No. 5,990,881, claims 3-6 and 8.

### ***Conclusion***

13. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information

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and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

## **Certificate of Mailing**

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Commissioner for Patents  
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Alexandria, VA 22313-1450

on \_\_\_\_\_  
(Date)

Typed or printed name of person signing this certificate:

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Signature: \_\_\_\_\_

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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. ( ) \_\_\_\_\_ - \_\_\_\_\_ on \_\_\_\_\_  
(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

Signature: \_\_\_\_\_

Registration Number: \_\_\_\_\_

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Sheleheda  
Patent Examiner  
Art Unit 2623

JS

  
**CHRIS KELLEY**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**